

# LISTings

Newsletter of the Long Island Sinclair / Timex Users' Group

15 YEARS AND STILL GOING STRONG!

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to: L.I.S.T.

Mr. Bob Gilder  
69 Jefferson Place,  
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COMING EVENTS: The next L.I.S.T.  
meeting will be Sunday, 06/08/97  
at 2 P.M. at the home of Tom  
Skapinski, 7 Atkinson Lane,  
Coram, NY 11727-3004

**NEXT MEETING JUNE 8 1997**

*On a sample copy sent upon receipt of business size SASE. Copies provided on Exchange basis with other Bona fide user groups. We are always looking for articles, programs, reviews, etc to keep members informed and entertained. You maintain full credit and copyright.*

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## QL CORNER

The fifth annual North American QL show in Bedford, PA, was a huge success. Bob Malloy and Joe LaPunzina accompanied me on the trip which was 335 miles to Bedford, PA. We were lucky that we had great weather for the drive, however, we had to make a stop for fuel and lunch. We arrived at the Super 8 Motel about 4:00 PM and met some of the show attendees in the hotel lobby. We cleaned up and met with the whole QL gang in the lobby and at 6:00 all of us proceeded to the the Carriage House Restaurant for dinner and some conversation.

Saturday morning at 9:00, we motored down to the Carriage House Restaurant and entered into a large dining room where the QL vendors had there merchandise on display. I had ordered some software and hardware from Frank & Carol Davis. I purchased a QUBIDE, QL hard disk interface and several Software items. Jochen Merz was selling and providing updates for his software. I was surprised to see Stuart Honeyball - he was just a spectator at the show. Roy Woods of Q Branch was also doing well. Incidentally, Q Branch is one of three QL vendors that accommodates customers with credit cards.

There were a few demos during the day and photos were taken by AL Boehm. The Carriage House Restaurant provided us with coffee during the day and we had a great lunch buffet. Incidentally, the restaurant opened at 6:00 PM and our show area was set up for our dinner. It was great!

I had finally met Ruth Fegley from the CATS group and she is a member of LIST. She was full of laughs and we had a great time. Ruth stated that Tom Robins (CATS) had added two lines to her XCHANGE Boot. Look for her letter to me below. Thank's Ruth for your letter!

All and all, this show was probably the better of all of the North American QL shows which I have attended. Perhaps it was the closeness of the vendors and attendees. It is my understanding that there will be another QL Show at Bedford, PA, next year. I hope that I can attend.

It is hard to comprehend that the QL is stronger than ever. There is a flurry of activity through Europe with development of QL hardware and software. On the hardware front is the Aurora board which will operate via the ROM port. There is the Goldfire card will support up to 256Mb of ram and multiprocessor capability an with a second chip being used for I/O and this interface will operate at 33MHZ which should be approximately 6 to 8 times than a Super GOLD card.

Miracle Systems has announced that development is under way for production of the ULTRA GOLD Card. Stuart says that this interface should run over twenty times faster than a SUPER GOLD Card. WOW!!!

Software for the QL is being developed at a rapid rate throughout Europe and many software authors are also modifying some software to run on the new breed of hardware interfaces.

If you havn't subscribed to QL Today you are missing out on a quality publication. The Volume 1, issue 6 had a DD disk with programs. The publisher of QL Today is requesting that we, in the USA help support the publication and submit some articles for software and/or hardware. The Issue 1, of Volume 2 has 57 pages packed with interesting articles.

I have been playing around with a program called QLQ, a 24 pin font program. It will operate within the Pointer Environment or SuperBASIC. A printout of all the fonts are below. They can be enlarged for double height using the normal codes from your printer. ESC E W1 will print double size characters and when you want to print normal text, you can send the code ESC F W0. and if you want small characters with double width use ESC E w1 and back to normal characters with ESC F w0.

I've also purchased QTPY a spelling checker for the Pointer Environment and Line Design. Hopefully, I will be able to spend time learning the ins and outs of both programs.

## QLQ-Demo

This text is using the METALLICA font, and TYPEWRITER : Proportional, spacing is required.

Now we are displaying Font SCRIPT. The Script is a very nice Font

The BROADWAY Font is Bold with a white line. The BROADWAY should be used for an effect understrichen.

A sample of the TYPEWRITER Font

A sample of Antiqua. Test 01234 abcdefABCDEFGHJKLM

This is Avantgarde. Test 01234 abcdefABCDEFGHJKLM

This is Corinthian. Test 01234 abcdefABCDEFGHJKLM

This is Data. Test 01234 abcdefABCDEFGHJKLM

This is Grotesk. Test 01234 abcdefABCDEFGHJKLM

This is Modern. Test 01234 abcdefABCDEFGHJKLM

This is Neon. Test 01234 abcdefABCDEFGHJKLM

This is Oldenglish. Test 01234 abcdef1234567890

This is KAPITAL. Test 01234 ABCDEFGHJKLM

This is Antiqua. Test 01234567890 abcdefghijklmnopqrstuvwxyz.

Who knows what this line states in German, OK

What next!

**BROADWAY BABES!**

**A little bit of German - Oder ganz fett ...**

*This is SCRIPT again - SO LONG!*

6000 Ivydene Terrace Apt E-1  
Baltimore, Maryland 21209-3547  
May 9, 1997

Mr. Robert Gilder  
69 Jefferson Place  
Massapequa NY 11758-77843

Dear Bob:

As promised, here's what Tom Robbins added to my XCHANGE boot to allow me to print whatever I want and still be able to work on another document within XCHANGE.

```
1010 REMark now buffer printing from ser port
1020 PRT_USE ser,ser
```

Although you say you have no problem doing this because of the large buffer within your printer, until Tom added these lines to my Boot program I had to wait until the document was printed before the cursor returned to allow me to continue with another document. To be honest, I can't be sure I have to wait for the entire thing to be printed out, but my wait is sufficiently long for me to stop using that version of XCHANGE. So I figured others may have less sophisticated printers (like my QL printer) and could benefit by this addition to their Boot.

My next project will be to learn how to take advantage of the extra Translations in the print drivers.

'Nuff for now.

Sincerely,



RUTH FEGLEY

See you next month... Bob Gilder

An other piece for LISTings:

-----

ZX SPECTRUM TAPE FILE FORMAT by Tomaz Kac      Submitted by John Pazmino

-----

[Tomaz Kac is designing a new means of preserving Spectrum cassette data on an IBM disc for use in various emulators. He began this project is January 1997 and posts updates for comment in comp.sys.sinclair. This version 7 was hung on 24 February 1997. Mr Kac is at tomaz.kac@uni-mb.si/]

PLEASE Do not use this format YET, since it is constantly changing !!!  
All additions/corrections are welcome and should be posted to comp.sys.sinclair AND directly to me on email: tomaz.kac@uni-mb.si .

This format lets you preserve all (hopefully) of the tapes with turbo or custom loading routines. Even though some of the newest and 'smarter' emulators can find most of the info about the loader from the code itself, this cannot be possible if you want to replay the file to the good old real spectrum. And with all this information in the file the emulators don't have to bother with finding out the baud rate and other things.

There were three suggestions for the preferred 3 letter filename extension: (The number on the right is how many people voted for that extension)

.SPT (SpectrumTape)	3
.TZX (Tape for ZX)	4
.TPE (as TaPE)	1
.TPX (TaPe eXtension)	1

As you can see not many people voted so far :(

.ZXT is already used for another file type. Please tell me which one is your favorite or suggest some other... The one most favorite will be used in the final version ;)

The file is identified with the first 8 bytes being 'ZXTape!' plus EndOfFile byte 26 (1A hex). After these 8 bytes the two bytes with the Major and Minor Revision number follow. First byte is Major revision number - the program must be able to handle at least this revision number or later to use the file, the Second byte is Minor revision number - if the program can handle only formats with lower Minor revision number than the one in the file then some information could not be interpreted (but that info should not be so important...).

Then the body follows which is devised from blocks. Each block is identified with its ID byte followed by its body. There are currently 11 types of blocks.

So the file structure is : 'ZXTape!' 0x1A MajR MinR ID1 Body1 ID2 Body2 ...

0 7 8 9 A ...

- The Two-Byte values are always stored LSB (Least Significant Byte) First.

- The bit order in a byte is : 7 6 5 4 3 2 1 0

and in a word : first byte (LSB) : 7 6 5 4 3 2 1 0

(word == short == 2 bytes) : second byte (MSB) : 15 14 13 12 11 10 9 8

All unused bits should be Unset - 0 !

- The timings are given in Z80 clock ticks (T states) unless otherwise stated.

1 T state = 1sec/3500000

- The values in the tables mean : Offset (in HEX bytes), Length (1-byte, 2-word)

- You might interpret full-period as one pulse (---- or ----) and half-period as only one half of the pulse (---- or ----).

- The values in brackets [] are the default values of Spectrum ROM load/save routines - they should be used for all Standard loading blocks. These values are in Decimal format. Please inform me if some are incorrect.

These are the possible blocks :



ID : 00 - Loading Speed Change for Custom Loading Blocks  
----- and Change of the Standard Pause

All custom loading blocks that follow this block use the applied change ! The Standard Pause is applied after ALL Blocks that don't have a special Pause Block (ID=01) after them !!! Default value for Standard Pause should be one second.

00 1 Change which Value: 00 - Length of PILOT half-period [2168]  
01 - Length of SYNC First half-period [735]  
02 - Length of SYNC Second half-period [667]  
03 - Length of ZERO bit half-period [855]  
04 - Length of ONE bit half-period [1710]  
05 - Length of BOTH 0 and 1 bit half-period  
FF - Standard Pause After Blocks [10]

When 05 is selected the Value holds Zero bit half-period, the One bit half-period is the Value multiplied by 2.

01 2 Value : for 00-05 in Z80 T-States  
for FF First byte contains value in tenth of seconds (1s/10)  
Second byte should contain 0 !

ID : 01 - Pause (with an optional message)  
-----

Use this block if the Pause should be different from the Standard one.

If the Value is 0 then there should be absolutely NO pause. If the Value is 255 then the Pause should be Indefinite (Waiting for a keypress) If the emulator should display a message while the pause is on then the message length should be greater than 0 ... if 0 then no message.

00 1 Value of the pause in tenth of seconds (1s/10)  
01 1 Length of the message (if 0 then NO message)  
02 x Message that should be displayed (in ASCII)

ID : 02 - Text Description  
-----

The description can be upto 255 characters long but please keep it down to about 30 so the programs can show it in one line ! This is ment to identify parts of the tape, so you know where level 1 starts, where to rewind when you lose all the lives, etc. Please use 'Archive Info' block for Title, Authors, Publisher,...

00 1 Length of the Text  
01 x Text in ASCII

ID : 03 - Custom Loading Data Block  
-----

This is the block with actual data. It is very similar to the normal .TAP block but with some additional Info and will use all Loading Speed changes from blocks with ID 01.

00 2 Length of PILOT tone (in PILOT full-periods) [8064 Header, 3220 Data]  
02 1 General Purpose Flag :  
Bit 0 : 1 If SYNC tone is present, 0 if NOT [1]  
03 1 Used bits in LAST Byte (other bits should be 0) [8]  
i.e. if this is 6 then the bits (x) used in LAST byte are: xxxxxx00  
04 2 Length of DATA that follows  
06 x DATA, the bits are saved MSb (Most Significant bit) first

ID : 04 - Normal Speed Data Block (as in .TAP files)

-----  
This block must be replayed with the Standard ROM Values for all Loading Speed variables (values in brackets []). If you know the default values for ZX-81 ROM save/load routine then please email me. This block can be used for the ROM loading routines AND for custom loading routines that use the same timings as ROM ones do.

00 2 Length of DATA that follows

02 x DATA, as in .TAP File

ID : 05 - Hardware Type

-----  
This selects what hardware the programs on this tape use. Please include only Machines/Hardware for which you are 100% sure that it either runs (or not runs) on that machine/hardware or you know it uses (or not uses) the hardware or special features of that machine!

NOTE: If the tape runs only on ZX-81 then there is no need to put all the other Machines to DOESN'T RUN (and vice versa)! I think the emulators and utilities can be so smart to detect that :)

00 1 Number of Machines/Hardware for which Info exists

01 x List of Machines/Hardware :

- 00 1 ID : 00 - ZX Spectrum 48k, Plus
- 01 - ZX Spectrum 48k ISSUE 1
- 02 - ZX Spectrum 128k, +2 (Grey case)
- 03 - ZX Spectrum 128k +2A, +3
- 04 - AY Sound Hardware (ZX 128k Compatible) with 48k Spectrum
- 05 - Fuller Box AY Sound Hardware
- 06 - Currah microSpeech
- 07 - SpecDrum
- 08 - Timex Sinclair TC-2048
- 09 - Timex Sinclair TS-2068
- 0A - Pentagon 128
- 0B - Sam Coupe
- 0C - Didaktik M
- 0D - Didaktik Gama
- 0E - ZX-81 with 1k RAM
- 0F - ZX-81 with 16k RAM or more

10 - Disciple/Plus-D Interface

11 - ZX Interface 1

12 - ZX LPrint Interface

13 - Didaktik disk drives

01 1 Value : 00 - The game RUNS on this machine (or with this Hardware), but it is not sure whether it uses the hardware or special features of the machine.

01 - The game USES the hardware or special features of the machine. (like 128k Memory or AY Sound on 128k ZXs)

02 - The game RUNS but it DOESN'T use the hardware or special features of the machine.

03 - The game DOESN'T RUN on this machine (or with this Hardware)

.... Next Machine/Hardware Info

Please tell me which other Timex Sinclair models have different hardware than ZX Spectrum 48k, 128k and they will be included! If you know of any more Spectrum clones with hardware other than this or some other add-on hardware then please e-mail me !

# ID : 06 - Emulation Info

-----  
This is a special block that would normally be generated only by Emulators. For now it contains info on everything I could find that other formats support. Please inform me of any additions/corrections since this is a very important part for emulators. Those bits that are not used by the emulator that stored the info, should be left at the DEFAULT values, you might want to set some according to Hardware Info block (like 128k Emulation and AY Emulation) !

## 00 2 Hardware Info

Bit 0 : 128k Emulation on	[0]
1 : AY Emulation on (for 48k programs)	[1]
2 : Interface 1 present	[0]
3 : SamRam present	[0]
4 : Multiface 128 present	[0]

## 02 1 Joystick Selection : 00 - Cursor/Protek/AGF

01 - Kempston	-Kempston]
02 - Sinclair 2 Left (keys 12345)	
03 - Sinclair 1 Right (keys 67890)	

## 03 2 General Emulation Flags

Bit 0 : R-register emulation	[1]
1 : LDIR emulation	[1]
2 : Double Interrupt Frequency	[0]
3 : High Resolution Color emulation with True Interrupt Freq.	[1]
4,5 : Video Synchronisation : 1=High, 3=Low, 0,2=Normal	[0]
6 : Fast Loading when ROM load routine is used	[1]
7 : Border emulation	[1]
8 : Screen Refresh mode (1: ON, 0: OFF)	[1]
9 : Start Playing the tape Immediately	[0]
If this is 0 then the emulator should only load the info blocks and WAIT when it encounters first DATA block	
10 : Auto type LOAD""<ENTER> or press <ENTER> when in 128k mode	[0]

## 05 1 Screen Refresh Delay : 1 - 255 (Interrupts between refreshes) [1]

(used when Screen Refresh Mode in General Emul. Flags is ON)

## 06 2 Interrupt Frequency : 0 - 999 Hz [50]

## 08 8 Reserved for future expansion (Should be 0)

# ID : 07 - Archive Info

-----  
Use this block in the beginning of the tape to identify the Title of the game, Author, Publisher, Year of publication, etc. This block is build in a way that future expansions are easily possible. The block consists of Texts. Each text has its Identification Number (which tells us what the text means) and then the ASCII text. To make it possible to skip this block, if needed, the length of the WHOLE block is on the start of it. Note: The information about what hardware the tape uses is in the 'Hardware Type' block, so no need for it here.

## 00 2 Length of the block (without this two bytes)

## 02 1 Number of Texts

## 03 x Here are all the texts in the format:

00 1 Text Identification byte:	00 - Full Title
	01 - Software House / Publisher
	02 - Author(s)
	03 - Year of Publication
	FF - Comment(s)

## 01 1 Length of the Text

## 02 x Text in ASCII format

.... Next Text



ID : 08 - Snapshot Block

-----  
This, for now, is only to see how you guys think of this format to have actual Snapshot in it too. This would enable one to snapshot the game at the start and still have all the TAPE blocks (for next levels etc.) in the SAME file. I don't know if this is a good idea or not, it was suggested and I have to put it in to see what you mean.

- 00 1 Snapshot Type : 00 - Z80 Snapshot (Z80 Emulator, Warajevo,...)
  - 01 - SNA Snapshot (JPP, Amiga Spectrum Emulator,...)
  - 02 - SNP Snapshot (Didaktik disk snapshot)
  - 03 - SIT Snapshot (Sinclair 2.0 by Pedro Salaz)
  - 04 - SP Snapshot (Sinclair 0.99 by Pedro Gimeno)
- 01 2 Snapshot Length (so it can be easily skipped)
- 03 x Snapshot itself

ID : 09 - Custom Info block

-----  
This block can be used to save ANY information you want. i.e. if some utility desires to write some stuff into the tape file then this block should be used. it can be upto 65535 bytes long and it can contain ANYTHING ... for instance : If the emulator has some settings that are not described in the 'Emulation Info' or someone wants to make a block containing POKES or whatever then they can use this for it. Ofcourse some of these blocks can be standardised in the future ...

- 00 F Identification String (in ASCII)
- 10 2 Length of the info that follows
- 12 x Custom Info

ID : 0A - Jump To Block

-----  
This block will enable you to jump from one block to another block in the file. i.e. if you want to skip some blocks or go back some blocks then this is now possible. The value is 2-byte SIGNED RELATIVE offset. Which means if the value is 2 then you jump 2 blocks ahead. If it is -3 you jump 3 blocks back. Simple as possible :)

- 00 2 Relative Offset : In Binary Complement, MSbit is the sign (FFFF = -1) (this is Offset in BLOCKS, NOT Bytes)

ID : 5A (90 dec, ASCII letter 'Z')

-----  
This is a block that would be generated if you merged two ZX Tape files together. It is here so you can easily copy the files together and use them. Ofcourse this means that resulting file would be 8 bytes longer than if this block was not used. All you have to do if you encounter this block ID is to skip next 9 bytes. Please, if you can don't merge two files together this way, use a utility that will let you do that without having this extra block.

- 00 9 'XTape!' 0x1A MajR MinR Just skip these 9 bytes and you will end up on the next ID.

\* \* \* \* \*

ATTENTION LIST Subscribers: When it is time to renew your membership, (look at your mailing label), please make out your check to Harvey Rait, LIST President or to Robert Malloy, Treasurer. PLEASE DO NOT MAKE OUT YOUR CHECK to LIST. Our bank requires a large amount of money in a savings account in order to cash checks. THANK YOU!

Robert Gilder  
69 Jefferson Place,  
Massapequa, NY 11758

Robert Malloy  
412 Pacific Street,  
Massapequa Park, NY 11762

Due to rising postage costs outside of the United States, we must raise our annual dues accordingly:

USA postage \$16.00

CANADA and MEXICO \$17.50 US, and the rest of the world \$24.00 US.

Bob Malloy, LIST Treasurer

#### WHO'S ONLINE

Some of us here at LIST have been wondering how many of our members are using modems with their Sinclair computers. It would be helpful if those of you who are into communications would take a few minutes to let us have the following info.

COMPUTER USED .....  
COMMS PRGRM .....  
BAUD RATE .....  
EMAIL ADDRESS.....  
ONLINE SERVICES USED.....  
SUGGESTIONS FOR LIST.....

You can reply to me at either of the following addresses:

74776.2342@compuserve.com  
bmalloy@chelsea.ios.com (Internet)

Or, you can use our snailmail address.

Bob Malloy

#### ON LINE

Bob Malloy	74776.2342@compuserve.com
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